



PCT10

RAW SEQUENCE LISTING DATE: 05/12/2003 PATENT APPLICATION: US/10/049,473A TIME: 11:37:58

Input Set : A:\294-120PCT-US sequence listing.txt

Output Set: N:\CRF4\05122003\J049473A.raw

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3 <110> APPLICANT: de Groot, Ronald
         Hermans, Peter Wilhelmus Maria
 6 <120> TITLE OF INVENTION: Pneumococcal Vaccines
 8 <130> FILE REFERENCE: Docket 294-120 PCT/US
10 <140> CURRENT APPLICATION NUMBER: US 10/049,473A
11 <141> CURRENT FILING DATE: 2002-02-12
13 <150> PRIOR APPLICATION NUMBER: PCT/NL00/00569
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14 <151> PRIOR FILING DATE: 2000-08-14
16 <150> PRIOR APPLICATION NUMBER: EP 99202640.1
17 <151> PRIOR FILING DATE: 1999-08-13
19 <160> NUMBER OF SEQ ID NOS: 5
21 <170> SOFTWARE: PatentIn version 3.1
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37 tcaqaqcttq atgataaaqa qqttqatqat actattgccq aagaaaaaaa acaatatggc
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41 attcgtacaa gtaaattagt tgagttggca gttaagaagg tagcagaagc tgaattgaca
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                                                                         540
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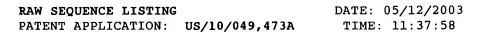
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88 91		Glu	Leu	Asp	Asp	70 Lys	Glu	Val	Asp	Asp	75 Thr	Ile	Ala	Glu	Glu	80 Lys
92	_			~ 1	85		_	a 1		90	•	0	a1		.95	14-4
95 . 96	Lys	GIn	Tyr	100	GIu	ASN	Tyr	GIn	105	vaı	Leu	ser	GIN	Ala 110	GIY	Met
99	Thr	Leu	Glu	Thr	Arg	Lys	Ala			Arg	Thr	Ser		Leu	Val	Glu
100			115					120					125			_
				Lys	Lys	Val			ı Ala	ı Glu	Lei			Glu	Ala	Tyr
104		130			_		135		_			140		a 1	-1	-1 .
			S Ala	a Phe	Asp			Thi	Pro) Asp			Ala	i GIn	, IIe	Ile
	145					150		. 11-		. (2).	155				. או	160
	Arg	t rer	ı ASI	1 ASI	165		гу	S Alc	rrys	170		те.	ı Gıt	ггуз	175	Lys
112	7 7-			, al-			. 7.1 -	C1*	. Tou			. Acr	. Acr	Cor		Asp
116		i GII	r GT	180		Pile	: AIC	GII	185		ny:	, wal	, WOI	190		nsp
		1 T 176	. The			λen	G13	, G1s			ጥከነ	· Dhe	λer			Ser
120		т пуз	195	_	, GIu	. ASI	GI	200		. 116	. 1111	. 1110	205		niu	JCI
		· Glu	_		o Glu	Gln	Val			: Ala	Αla	Phe			Asn	Val
124	1111	210			, 014	. 011	215	_	,	,		220				, , , ,
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			ı Tyı	Tyr	: Ile	Val	Lys	Leu	Thr	Lys	Lys	Thr	Glu	Lys	Ser	Ser
132			-	_	245		-			250				-	255	
135	Asr	ıle	Asp	Asp	Tyr	Lys	Glu	Lys	Leu	ı Lys	Thi	. Val	. Ile	Leu	Thr	Gln
136				260)				265	;				270	l	
139	Lys	Glr	ı Asr	a Asp	Ser	Thr	Phe	val	Glr	Ser	· Ile	e Ile	e Gly	Lys	Glu	Leu
140			275					280					285			
143	Glr	ı Ala	ı Ala	a Asr	ı Ile	Lys		_	: Asp	Gln	Ala			Asn	Ile	Phe
144	_	290		_			295					300		_		_
			ту1	: Ile	Gly			Asp	Ser	Ser			Ser	Ser		Ser
	305					310					315)				320
		Glu		·												
		10> 5														
		1> I														
		2> 1				toho	ai 11	uć r								
		00> 5				LODa	CIII	.us _L	arac	asei	•					
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163		- пус	, пуз	, пуг	5 Mec	Ац	пец	. шуз	, vai	. 10	. пес	I ALG	. Ser		15	1111
		Len	Lei	ı Len	-	Ser	Glv	r Cvs	Glr		Asr	Gln	Ala	Asp		Lys
167				20			~- <i>1</i>	٠, ١	25					30		
	Va1	Ala	Thr		Ser	Glv	Glv	Lvs		Thr	Glu	Ser	Asn		Tyr	Lys
171			35			-1	-1	40					45		4	-
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186	Phe	Asp	Ala	Phe	Leu	Ser	Gln	Asn	Gly	Phe	Ser	Arg	Ser	Ser	Phe	Lys
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235	.01	290					295									
				ONO											-	
				1: 29	99											
		2> T			T ~ ~ 4			1 4								
						Lactococcus lactis lactis										
				ICE:		3	T 0.11	T	17-1	T 011	T 011	71-	Com	mh ∞	7 l a	mb »
		гаг	ьуѕ	гая	met 5	Arg	Leu	гуу	val	10	Leu	Ата	Ser	1111	Ala 15	1111
246		Tan	T 011	T 011	_	Cor	C1++	Crra	Cln		A on	Cln	mh ~	A on		
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250	Wa I	λ1 ¬	mh.r.		Cor	C111	C111	T 170		mh r	C111	Cor	Cor		Tyr	Two
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	G111	Leu		Gln	Ser	Dro	ጥኮታ		Tare	ጥኮኮ	Met	T.e.u		Δen	Met	T.eu
258	GIU	50	пуз	3111	PET	FIU	55	1 11IT	пур	TILL	rie C	60	AIG	บจแ	rie L	Deu
	Tle		Δτσ	Δla	Leu	Δen		Δla	ጥህጥ	Glv	Lvc		Va 1	Ser	Thr	T.ve
262		-1-	**** 9		LCu	70	1113	21.IU	-1-	O I J	75	J-1	, 41	501	T 111	80 80
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266					85	-1-			-1-	90			-1-	1	95	
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	Lys	_	Val	Ser	GLu	Ser		Leu	Lys	Ala	Ala		Lys	Thr	Tyr	GIn
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310				260					265					270		
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314		-10	275					280	-1-		-1-		285			
	Leu	Δsn		Tur	Lvc	Lvs	T.eu		Thr	Thr	Agn		200			
		_	001	-1-	_,_	_,_										
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VERIFICATION SUMMARY

DATE: 05/12/2003

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